GETTING STARTED:

- Please take out a few pieces of paper and a pen or pencil. Write your name, the date, your class period, and a title at the top of the paper:

  “Logical Fallacies”

- **Warm Up Prompt:** “Whether you know what fallacies are or not, try to describe at least two situations where an argument is made that does not *logically* make sense. That is, the argument one is making may kind of be valid, but for some reason is not. Do your best to explain or describe your two arguments.”

- When we are finished writing, we will share some responses. Please take notes on the class discussion.
Fallacies are common errors in reasoning that will undermine the logic of your argument.

Can be either illegitimate arguments or irrelevant points.

Often identified because they lack evidence that supports their claim.

Avoid fallacies in your own arguments and watch for them in the arguments of others.

(From Purdue Online Writing Lab)
**PRE-TEST:** (5 MIN TO TAKE TEST. WE WILL GRADE AS A CLASS)

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Please take notes on the following lecture. You will be presented with an abundance of information and examples on fallacies.

There will be ten total fallacies in this lesson.

For each fallacy:
- Write the name of the fallacy and underline it.
- Write the definition of the fallacy
- Write the “mathematical” example.
- Choose one more example (there will be several) and write it.

Do your best! Ask questions! Seek to understand!
**Ad Hominem:** Latin for “against the man”

- **Definition**—A claim or argument is rejected on the basis of some irrelevant fact about the author of or the person presenting the claim or argument.

- Typically, this fallacy involves two steps:
  1. an attack against the character of the person making the claim, her circumstances, or her actions is made
  2. Second, this attack is taken to be evidence against the claim or argument the person in question is making (or presenting).

- This type of “argument” has the following form:
  1. Person A makes claim X.
  2. Person B makes an attack on person A.
  3. Therefore A’s claim is false.

- Ad Hominem is a fallacy because the character, circumstances, or actions of a person do not have a bearing on the truth or falsity of the claim being made.
**AD HOMINEM: EXAMPLES**

- **EXAMPLE: #1:**
  Bill: “I believe that abortion is morally wrong.”
  Dave: “Of course you would say that, you’re a priest.”
  Bill: “What about the arguments I gave to support my position?”
  Dave “Those don’t count. Like I said, you’re a priest, so you have to say that abortion is wrong. Further, you are just a lackey to the Pope, so I can’t believe what you say.”

- **EXAMPLE #2:**
  How can we accept Jill’s argument in favor of abortion rights when she herself has had three of them?
The Straw Man fallacy is committed: “when a person simply ignores a person's actual position and substitutes a distorted, exaggerated or misrepresented version of that position.”

This sort of "reasoning" has the following pattern:

1. Person A has position X.
2. Person B presents position Y (a distorted version of X).
3. Person B attacks position Y.
4. Therefore X is false/incorrect/flawed.
STRAW MAN: EXAMPLES

EXAMPLE #1:

Jones: "The university just cut our yearly budget by $10,000."
Smith: "What are we going to do?"
Brown: "I think we should eliminate one of the teaching assistant positions. That would take care of it."
Jones: "We could reduce our scheduled raises instead."
Brown: "I can't understand why you want to bleed us dry like that, Jones."

EXAMPLE #2:

Jill: "We should clean out the closets. They are getting a bit messy."
Bill: "Why, we just went through those closets last year. Do we have to clean them out everyday?"
Jill: "I never said anything about cleaning them out every day. You just want to keep all your junk forever, which is just ridiculous."
The Appeal to Common Practice is a fallacy with the following structure:

1. X is a common action.
2. Therefore, X is correct/moral/justified/ reasonable, etc.

The basic idea behind the fallacy is that the fact that most people do X is used as "evidence" to support the action or practice.

It is a fallacy because the mere fact that most people do something does not make it moral, correct, justified, or reasonable.
EXAMPLES OF APPEAL TO COMMON PRACTICE

EXAMPLE #1:

Director Jones is in charge of running a state waste management program. When it is found that the program is rife with corruption, Jones says "This program has its problems, but nothing goes on in this program that doesn't go on in all state programs."

EXAMPLE #2:

"Yeah, I know some people say that cheating on tests is wrong. But we all know that everyone does it, so it's okay."

EXAMPLE #3:

"Sure, some people buy into that equality crap. However, we know that everyone pays women less than men. It's okay, too. Since everyone does it, it can't really be wrong."
BEGGING THE QUESTION

- A fallacy in which “the premises include the claim that the conclusion is true or (directly or indirectly) assume that the conclusion is true.”

- This sort of "reasoning" typically has the following form:
  1. Premises in which the truth of the conclusion is claimed or the truth of the conclusion is assumed (either directly or indirectly).
  2. Claim C (the conclusion) is true.

- Assuming a claim is true does not serve as evidence for that claim.

- This is especially clear in particularly blatant cases: "X is true. The evidence for this claim is that X is true."
EXAMPLES OF BEGGING THE QUESTION

EXAMPLE #1:

Bill: "God must exist."
Jill: "How do you know."
Bill: "Because the Bible says so."
Jill: "Why should I believe the Bible?"
Bill: "Because the Bible was written by God."

EXAMPLE #2:

"The belief in God is universal. After all, everyone believes in God."

EXAMPLE #3:

"If such actions were not illegal, then they would not be prohibited by the law."
SLIPPERY SLOPE

- A fallacy in which “a person asserts that some event must inevitably follow from another without any argument for the inevitability of the event in question.”

- In most cases, there are a series of steps or gradations between one event and the one in question.

- Furthermore, no reason is given as to why the intervening steps or gradations will simply be bypassed.

- This "argument" has the following form:

  1. Event X has occurred (or will or might occur).
  2. Therefore event Y will inevitably happen.

This sort of "reasoning" is fallacious because there is no reason to believe that one event must inevitably follow from another without an argument for such a claim.
EXAMPLES OF SLIPPERY SLOPE

EXAMPLE #1:

We have to stop the tuition increase! The next thing you know, they’ll be charging $40,000 a semester!"

EXAMPLE #2:

"The US shouldn't get involved militarily in other countries. Once the government sends in a few troops, it will then send in thousands to die."

EXAMPLE #3:

“President Obama’s executive order calls for background checks on people who buy guns. Yeah right! He really wants to take all our guns away and destroy the Second Amendment!!"

EXAMPLE #4:

"We've got to stop them from banning pornography. Once they start banning one form of literature, they will never stop. Next thing you know, they will be burning all the books!"
FALSE DILEMMA

- Also known as the “Either/Or” fallacy.
- A False Dilemma is a fallacy in which a person uses the following pattern of "reasoning":
  1. Either claim X is true or claim Y is true (when X and Y could both be false).
  2. Claim Y is false.
  3. Therefore claim X is true.
- This line of "reasoning" is fallacious because if both claims could be false, then it cannot be inferred that one is true because the other is false.
EXAMPLES OF FALSE DILEMMA

EXAMPLE #1:
1. Either $1+1 = 4$ or $1+1 = 12$.
2. It is not the case that $1+1 = 4$.
3. Therefore $1+1 = 12$.

EXAMPLE #2:
Senator Jill: "We'll have to cut education funding this year."
Senator Bill: "Why?"
Senator Jill: "Well, either we cut the social programs or we live with a huge deficit and we can't live with the deficit."

EXAMPLE #3:
"Look, you are going to have to make up your mind. Either you decide that you agree to abide by the laws in this country or move somewhere else."
**RED HERRING (SMOKE SCREEN)**

- A fallacy in which "an irrelevant topic is presented in order to divert attention from the original issue."

- The basic idea is to "win" an argument by leading attention away from the argument and to another topic.

- This sort of "reasoning" has the following form:

  1. topic A is under discussion.
  2. Topic B is introduced under the guise of being relevant to topic A (when topic B is actually not relevant to topic A).
  3. Topic A is abandoned.

This sort of "reasoning" is fallacious because merely changing the topic of discussion does not count as an argument against a claim.
EXAMPLES OF RED HERRING

EXAMPLE #1:
"Argument" against a bond measure for public parks:
"We admit that this bond measure for public parks is popular. But we also urge you to note that there are so many bond issues on this ballot that the whole thing is getting ridiculous." (topic switches from the issue of funding parks to the election and bond measures in general)

EXAMPLE #2:
"Argument" against an equal rights law for homosexuals:
"I recommend you don't support the equal right proposition for gays; they're just trying to get special privileges by calling attention to themselves." (topic switches from equal rights to getting special privileges)
POST HOC ERGO PROPTER HOC

- From the Latin. Has been traditionally interpreted as "After this, therefore, because of this."

- A Post Hoc is a fallacy with the following form:

  1. A occurs before B.
  2. Therefore A is the cause of B.

- This fallacy is committed "when it is concluded that one event causes another simply because the proposed cause occurred before the proposed effect."

- The fallacy involves concluding that A causes or caused B because A occurs before B. Yet there is not sufficient evidence to actually warrant such a claim.
EXAMPLES OF POST HOC

EXAMPLE #1: I had been doing pretty poorly this season. Then my girlfriend gave me neon laces for my spikes and I won my next three races. If I keep on wearing them I can't help but win!

EXAMPLE #2: Joan is scratched by a cat while visiting her friend. Two days later she comes down with a fever. Joan concludes that the cat's scratch must be the cause of her illness.

EXAMPLE #3: The Republicans pass a new tax reform law that benefits wealthy Americans. Shortly thereafter the economy takes a nose dive. The Democrats claim that the tax reform caused the economic woes and they push to get rid of it.
HASTY GENERALIZATION

- This fallacy is committed, “when a person draws a conclusion about a population based on a sample that is not large enough.” It has the following form:

1. Sample A, which is too small, is taken from population P.
2. Conclusion B is drawn about Population P based on Sample A.

- The fallacy is committed when not enough of a population are observed to warrant the conclusion.

- Hasty Generalization, like any fallacy, might have a true conclusion. However, as long as the reasoning is fallacious there is no reason to accept the conclusion based on that reasoning.
EXAMPLES OF HASTY GENERALIZATION

Example #1:

Smith, who is from England, decides to attend graduate school at Ohio State University. He has never been to the US before. The day after he arrives, he is walking back from an orientation session and sees two white (albino) squirrels chasing each other around a tree. In his next letter home, he tells his family that American squirrels are white.

Example #2:

Sam: “Barry Bonds uses steroids!”
Bill: “All those pro athletes are cheating, steroid shooting bums!”
An Appeal to Authority is a fallacy with the following form:

1. Person A is (claimed to be) an authority on subject S.
2. Person A makes claim C about subject S.
3. Therefore, C is true.

This fallacy is committed, “when the person in question is not a legitimate authority on the subject.”

More formally, if person A is not qualified to make reliable claims in subject S, then the argument will be fallacious.
EXAMPLES OF APPEAL TO AUTHORITY
CONCLUSION OF THIS LESSON

- Please go through your notes and make sure each of the ten fallacies are underlined.
- Please make sure your name and the title of the lesson is clearly written at the top of the page.
- Then please gather your notes together and turn them into the box.